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Unmet Social Needs And Worse Mental Health After Expiration Of COVID-19 Federal Pandemic Unemployment Compensation

DOI: 10.1377/hlthaff.2020.01990
HEALTH AFFAIRS 40,
NO. 3 (2021): -

ABSTRACT Federal Pandemic Unemployment Compensation (FPUC) provided unemployment insurance beneficiaries an extra \$600 a week during the unprecedented economic downturn during the coronavirus disease 2019 (COVID-19) pandemic, but it initially expired in July 2020. We applied difference-in-differences models to nationally representative data from the Census Bureau's Household Pulse Survey to examine changes in unmet health-related social needs and mental health among unemployment insurance beneficiaries before and after initial expiration of FPUC. The initial expiration was associated with a 10.79-percentage-point increase in risk for self-reported missed housing payments. Further, risk for food insufficiency, depressive symptoms, and anxiety symptoms also increased among households that reported receiving unemployment insurance benefits, relative to the period when FPUC was in effect. As further unemployment insurance reform is debated, policy makers should recognize the potential health impact of unemployment insurance.

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The coronavirus disease 2019 (COVID-19) pandemic has had a massive economic impact in the US, leading to the largest one-quarter economic contraction since record keeping began in 1945.¹ The unemployment rate peaked at 14.8 percent in April 2020 and remained elevated through December 2020.² Unemployment insurance has been a key part of the COVID-19 response, as more than sixty million people have applied for unemployment insurance benefits during the pandemic.³ A recent modeling study found that unemployment insurance would likely play a key role in aiding the recovery of consumer spending and averting poverty.⁴ Prior work has also suggested that unemployment insurance may offer important health benefits.⁵⁻⁸ First, it may help people meet health-related social needs such as food⁹ and housing. Unmet food and housing needs have been associated with worse health in a number of studies.¹⁰⁻¹⁴ Second, by helping people

meet basic needs, unemployment insurance benefits may affect mental health,¹⁵ such as by reducing depressive and anxiety symptoms.^{5,16}

Unemployment insurance is administered as a federal-state partnership, with eligibility, benefit levels, and duration of benefit set by states with broad oversight from the Department of Labor.¹⁷ States provide benefit funds (typically through employer and employee contributions as a form of social insurance), and the federal government provides funds for administration costs.¹⁷⁻¹⁹ Prepandemic, commissions on unemployment insurance reform raised concerns about relatively narrow eligibility and declining benefit levels.¹⁸⁻²¹ The March 2020 Coronavirus Aid, Relief, and Economic Security (CARES) Act expanded eligibility for unemployment insurance and the generosity of its benefits in three key ways. First, Pandemic Emergency Unemployment Compensation extended the maximum benefit duration for people receiving state unemployment insurance by up to thirteen

weeks. Next, Pandemic Unemployment Assistance provided unemployment insurance benefits to workers not eligible for state unemployment insurance programs, such as “gig economy” workers, the self-employed, and low-wage workers. Finally, Federal Pandemic Unemployment Compensation (FPUC) added \$600 per week in benefits on top of benefits received through state unemployment insurance or Pandemic Unemployment Assistance (adding to state unemployment benefits averaging around \$350 per week).²² The additional amount made benefits received during the period when FPUC was in effect much larger than historical averages, and for lower-wage workers, the benefits typically represented more income than they had earned while working.²³

Pandemic Emergency Unemployment Compensation and Pandemic Unemployment Assistance have been continuously active since March 2020. However, FPUC initially expired July 31, 2020. After FPUC expired, the Lost Wages Assistance program provided six weeks of \$300 supplemental payments before it in turn expired in September 2020.^{24,25} After FPUC expiration, unemployment insurance beneficiaries received substantially lower weekly payments. For example, a recipient may have gone from a mean state benefit of \$350 plus a federal benefit of \$600 in July 2020 to a mean state benefit of \$350 plus a federal benefit of \$300 (a 32 percent reduction) in September 2020, followed by a further decrease only to \$350 in state-provided funds after the Lost Wages Assistance program expired (a 63 percent reduction from July 2020 levels). Thus, as a result of FPUC expiration, unemployment insurance beneficiaries received smaller benefits beginning in August 2020 than in the period when FPUC was in effect. FPUC was reactivated in January 2021 through March 2021 as part of HR 133, the Consolidated Appropriations Act, 2021, but with a lower supplement of \$300 a week (the same supplement as in the Lost Wages Assistance program).

For this study we used the end of FPUC in July 2020 as a “natural experiment” that demarcated time periods when benefits were larger or smaller. Using difference-in-differences analyses, we tested the hypothesis that, for people with ongoing COVID-19-related income disruption, the expiration of FPUC unemployment insurance benefits would be associated with more unmet health-related social needs and worse mental health.

Study Data And Methods

DATA SOURCE, STUDY SETTING, AND PARTICIPANTS In this repeated cross-section study, we

used data from the Census Bureau’s Household Pulse Survey Public Use Files.²⁶ The Household Pulse Survey is a brief, internet-based survey, offered in English and Spanish, that was designed to enable population estimates of the household experience during COVID-19 across the US.²⁶ So far, it has been fielded in two phases. Phase 1 was fielded weekly over the course of twelve weeks (April 23–July 21, 2020). During the final six weeks (June 11–July 21, 2020), a question about unemployment insurance benefits was added. After a pause, phase 2 began August 19, 2020, fielded in two-week blocks. Although phase 2 included additional questions, many of the same questions asked during phase 1 were retained to permit analysis of trends. A respondent could complete the survey up to three times within a phase, but no respondents participated in both phase 1 and phase 2 during the period we analyzed. Only one respondent per household completed the survey.

We used data from the final six weeks of phase 1 (June 11–July 21, 2020, during which FPUC was active) and the first eight weeks of phase 2 (August 19–October 12, 2020, during which FPUC had expired). We included working-age adults (those born between 1955 and 2002) with ongoing pandemic-related income disruption, defined as people who reported a loss of employment income in their households on or after March 13, 2020, and who reported that during the seven days preceding the survey they did not have the kind of earned income they had prepandemic to meet household spending needs. We used these criteria to identify people with ongoing household income disruption—as those who had lost jobs initially but then returned to work (and thus reestablished a source of earned income) would not need unemployment insurance. More information about the Household Pulse Survey, including both the phase 1 and phase 2 survey instruments, is publicly available.²⁷

The University of North Carolina at Chapel Hill Institutional Review Board determined that this study did not constitute human subjects research (IRB No. 20-2657).

UNEMPLOYMENT INSURANCE BENEFITS We categorized as receiving unemployment insurance people who reported using unemployment insurance benefits to meet household spending needs in the past seven days, whereas those who did not report using such insurance were categorized as not receiving it. The method of classification was the same across the FPUC and post-FPUC periods.

OUTCOMES We considered several outcomes relevant to the pathways between unemployment insurance and short-term health impacts.

We considered two health-related social needs outcomes: housing instability (whether the respondent had made the prior month's housing payment on time) and food insufficiency (sometimes or often not having enough to eat).²⁸ The food insufficiency question was derived from the National Health and Nutrition Examination Survey III and was scored according to standard practice.^{28,29} We also examined two mental health outcomes: depressive and anxiety symptoms. Respondents were asked the Patient Health Questionnaire (PHQ-2) questions for depressive symptoms and Generalized Anxiety Disorder 2-item (GAD-2) questions for anxiety symptoms.^{30,31} Scores ranged from 0 to 6 (more depressive or anxiety symptoms), and, in keeping with scoring recommendations, we used a cutpoint of 3 or more on both questionnaires to indicate potentially clinically meaningful symptoms.^{30,31}

COVARIATES We considered several covariates that may confound the association between receipt of unemployment insurance benefits and health outcomes. These were age, gender (male or female), self-reported race/ethnicity (non-Hispanic White, non-Hispanic Black, Hispanic, non-Hispanic Asian, and non-Hispanic other or multiracial), education (less than high school diploma, high school diploma, more than high school diploma), 2019 (that is, prepandemic) annual household income category (less than \$25,000, \$25,000–\$34,999, \$35,000–\$49,999, \$50,000–\$74,999, \$75,000–\$99,999, \$100,000–\$149,999, \$150,000–\$199,999, and \$200,000 or more), marital status (married versus not), prepandemic food insufficiency, work in the past seven days, and household size. Because the impact of the pandemic was heterogeneous across states and time, we included variables for state of residence (all fifty states plus Washington, D.C., were included, all of which we refer to as states for convenience), state-level COVID-19 cases per capita at the beginning of the survey week,³² and

the calendar date of survey administration.

STATISTICAL ANALYSIS The Household Pulse Survey contains person weights to produce nationally representative estimates, which we used for all analyses. Our primary research question was whether there was a change in study outcomes in the post-FPUC period for unemployment insurance beneficiaries. To examine this question, we used difference-in-differences analyses that compared those who did and did not receive unemployment insurance benefits in the FPUC and post-FPUC periods. To conduct these analyses, we fit regression models with indicators for receipt of unemployment insurance benefits (yes or no), period (post-FPUC or during FPUC), and product term. To avoid interpretability issues with nonlinear models, we fit linear probability models.^{33,34} The unit of analysis was the survey response for a given week, and participants could complete the survey in more than one week. For descriptive statistics and unadjusted analyses, we used a respondent's first survey response. For regression analyses, we included all survey responses and used robust variance estimation with standard errors clustered by respondent to account for repeated measures within respondents. Regression models included all of the covariates listed here for adjustment.

To provide difference-in-differences estimates of study outcomes comparing the FPUC period in our data set (June–July 2020) with the Lost Wages Assistance period (August–September 2020, which was when the federal supplement was the same as 2021 FPUC benefit levels), we conducted similar analyses using data from the FPUC period and a subset of the post-FPUC period (August 19–September 14, 2020). We do, however, note that as a result of state variability in distribution of Lost Wages Assistance benefits, survey respondents might not have received Lost Wages Assistance benefits they were eligible for at the time they responded to the survey.

We conducted two sets of sensitivity analyses. The first used an alternative variance estimation strategy—balanced repeated replication weights—to make sure that our results were not sensitive to the choice of variance estimation strategies (see the online appendix).³⁵ Therefore, we fit the same models as for our primary analyses but using balanced repeated replication variance estimation. Second, although missingness for variables was generally low (less than 5 percent), missingness for the income variable was 13.2 percent. Therefore, as a sensitivity analysis, we used multiple imputation by chained equations,³⁶ generating ten imputed data sets to check that our results were not sensitive to item nonresponse.

A key assumption of difference-in-differences

analysis is that of “parallel trends,” which means that the difference in outcomes, if any, between those who did and did not receive unemployment insurance should remain stable during the FPUC period (when there were no major changes in federal unemployment insurance policy). To test this assumption, we used three approaches (see the appendix for details):³⁵ plots of unadjusted means for each of the four study outcomes, an “event study”-type analysis that fits regression models with a week-by-unemployment insurance indicator product term, and “placebo tests” for each of the four study outcomes. For the placebo tests, we took all of the phase 1 data (which correspond to the FPUC period) and artificially created a divide between the data from the first three weeks of our phase 1 data and the second three weeks. We then fit the same difference-in-differences models as used for the main analyses, using the artificial divide to demarcate the two periods. In other words, we tested whether we would detect a change during a period when we should not. Using this approach, if the parallel trends assumption holds, the unemployment insurance-by-period product term should have a coefficient close to 0.

Analyses were conducted in SAS, version 9.4; Stata/MP, version 16.1; and R, version 3.5.3. Given multiple outcomes in this study, we used the false discovery rate approach to control for type 1 error.³⁷ Therefore, we present regression results with both a nominal p value and a q value, which can be interpreted as indicating the proportion of results with that q value or lower that would be expected to be a false positive accounting for all the analyses conducted.³⁸ Thus, a q value <0.05 indicates that, accounting for multiple analyses, a given result is expected to be a false positive less than 5 percent of the time. We interpreted a q value <0.05 to indicate statistical significance.

LIMITATIONS This study had several limitations. As with any survey study, there was the possibility of selection bias owing to nonresponse (that is, those who completed the survey are not representative of the underlying population). To permit rapid fielding with minimal staffing, the Household Pulse Survey used a recruitment strategy that invited a large number of participants with minimal follow-up and fielded each survey for only a brief period of time. This resulted in a response rate much lower than typical for census surveys (approximately 3 percent).²⁷ This low response rate was anticipated in the survey design, and representativeness weights were provided to help address this issue. Nevertheless, we recognize that selection bias owing to nonresponse is an important consideration.

Next, the data were self-reported and limited to what was asked in both phases of the Household Pulse Survey: We did not have detailed data on current income, prepandemic jobs, or benefits received. Therefore, although we used a strong study design and adjusted for a robust set of potential confounders, the possibility of unmeasured confounding, particularly time-varying confounding, is an important concern.

Next, though we conducted several robustness checks, the assumption inherent to difference-in-differences analyses—that the intervention and control groups would continue to have parallel trends in outcomes into the future (were it not for the intervention)—is fundamentally untestable.

Finally, state reporting of unemployment numbers has been unreliable during the pandemic,³⁹ and with available data, we were unable to determine whether those who did not report receiving unemployment insurance benefits did not receive them because of ineligibility, misreporting, or issues with accessing benefits (see the appendix for further discussion).³⁵ Combined with only having self-report data regarding unemployment insurance benefit receipt, these factors could produce misclassification that would tend to bias results to the null.

Study Results

DESCRIPTIVE STATISTICS For this repeated cross-sectional study, there were 122,133 unique individuals who met inclusion criteria, representing almost 38 million Americans, and they provided 132,254 survey responses (range: 1–3 responses per participant). Exhibit 1 presents characteristics of participants based on their first recorded survey response (see appendix exhibit 1 for more detail).³⁵ There were 49,700 respondents, representing almost 14 million individuals, who re-

EXHIBIT 1

Characteristics of included participants from the Household Pulse Survey, June–October 2020

Characteristics	Overall (N = 122,133)	Received unemployment insurance benefits	
		No (n = 72,433)	Yes (n = 49,700)
Age, mean years (SD)**	40.7 (13.3)	40.5 (13.4)	41.0 (13.0)
Women (weighted %)*****	51.6	50.5	53.5
Race/ethnicity (weighted %)*****			
Non-Hispanic White	45.3	43.5	48.2
Non-Hispanic Black	17.2	17.0	17.5
Hispanic	27.3	29.8	22.9
Non-Hispanic Asian	5.6	4.8	7.0
Non-Hispanic other	4.7	4.9	4.4
Education (weighted %)*****			
Less than high school diploma	14.6	17.4	9.9
High school diploma	35.6	35.7	35.4
More than high school diploma	49.8	46.9	54.7
Prepandemic annual household income (weighted %)*****			
Less than \$25,000	28.1	31.9	22.0
\$25,000–\$34,999	16.3	16.5	16.0
\$35,000–\$49,999	15.0	14.3	16.0
\$50,000–\$74,999	17.3	15.7	19.7
\$75,000–\$99,999	10.0	9.0	11.6
\$100,000–\$149,999	8.3	7.5	9.6
\$150,000–\$199,999	3.0	2.8	3.2
\$200,000 or more	2.1	2.3	1.8
Married (weighted %)	43.7	43.8	43.4
Prepandemic food insufficiency (weighted %)*****	21.1	24.4	15.5
Worked in past 7 days (weighted %)*****	35.7	43.0	23.5
State COVID-19 cases per capita, mean (SD)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)

SOURCE Authors' analysis of data from the Household Pulse Survey. **NOTES** Weighted N = 37,717,054 overall, weighted n = 23,763,053 who did not receive unemployment insurance, and weighted n = 13,954,001 who did receive unemployment insurance. *p* values from weighted *t* tests (age, state COVID-19 cases per capita) or chi-square tests (all other variables). SD is standard deviation. ***p* < 0.05 ****p* < 0.001

ported household use of unemployment insurance benefits in the past week. There were 72,433 respondents, representing almost 24 million individuals, who did not report household use of unemployment insurance, despite pandemic-related income disruption. Overall, those who did not receive unemployment insurance were more likely to be Hispanic, have lower education, and have lower prepandemic income than those who did receive unemployment insurance. Study outcomes were patterned by race/ethnicity, education, and prepandemic income (appendix exhibit 2).³⁵

UNADJUSTED ANALYSES In unadjusted analyses, 26.5 percent of respondents reported current food insufficiency compared with 21.1 percent reporting prepandemic food insufficiency—a significant increase (McNemar's test *p* value < 0.001). Further, 42.0 percent had a PHQ-2 score of 3 or higher (exhibits 1 and 2; appendix exhibit 3).³⁵ Health-related social needs and mental health outcomes were worse for those

who did not receive unemployment insurance benefits—for example, 30.3 percent of those who did not receive unemployment insurance benefits reported missing a housing payment compared with 23.0 percent of those who received

EXHIBIT 2

Unadjusted relationship between receipt of unemployment insurance benefits and health-related social needs and mental health outcomes, 2020

	Overall, weighted %	Received unemployment insurance benefits (weighted %)	
		No	Yes
Missed housing payment	27.4	30.3	23.0***
Food insufficiency	26.5	29.6	21.5***
PHQ-2 depression score ≥ 3	42.0	42.6	40.9**
GAD-2 anxiety score ≥ 3	50.2	50.4	49.8

SOURCE Authors' analysis of data from the Household Pulse Survey Data. **NOTES** Sample sizes are in the notes to exhibit 1. *p* values from weighted chi-square tests. PHQ-2 is Patient Health Questionnaire-2. GAD-2 is Generalized Anxiety Disorder 2-item screener. ***p* < 0.05 ****p* < 0.001

EXHIBIT 3

Difference-in-differences estimates comparing receipt of post-Federal Pandemic Unemployment Compensation (FPUC) unemployment insurance with receipt of unemployment insurance when FPUC was active, 2020

	Percentage points of outcome risk	
	Difference-in-differences estimate	Difference between those who do and do not report household receipt of unemployment insurance benefits
Missed housing payment	10.79 ^{****}	-10.70 ^{****}
Food insufficiency	3.88 ^{****}	-5.01 ^{****}
Depressive symptoms	6.04 ^{****}	-4.15 ^{****}
Anxiety symptoms	5.82 ^{****}	-3.15 ^{****}

SOURCE Authors' analysis of data from the Household Pulse Survey data. **NOTES** Units are percentage points of risk for the outcome indicated by the row. The unemployment insurance estimate compares those who did and did not receive unemployment insurance. Point estimates, 95% confidence intervals (shown in the appendix; see note 37 in text), and *p* values are from linear probability regression models with robust standard errors clustered by respondent (to account for repeated survey responses within individuals) and representativeness weights. *q* values for all variables for both the difference-in-differences and unemployment insurance estimates are 0.007 or less. The *q* value comes from the false discovery rate approach to control type I error. The *q* value can be interpreted as indicating that the proportion of results with that *q* value or lower that would be expected to be a false positive accounting for all the analyses conducted. Thus, a *q* value <0.05 indicates that, accounting for multiple analyses, a given result is expected to be a false positive less than 5 percent of the time. Models were adjusted for age, gender, race/ethnicity, education, income, household size, prepandemic food insufficiency, marital status, work in the past seven days, state COVID-19 cases per capita, state, and week of survey. ^{***}*p* < 0.01 ^{****}*p* < 0.001

those benefits (*p* < 0.001).

TESTING THE PARALLEL TRENDS ASSUMPTION Demographics and outcomes in the FPUC period are shown in appendix exhibits 4 and 5.³⁵ Trends in study outcome by week did not lead us to reject the parallel trends assumption (appendix exhibits 6–9).³⁵ Event-study findings were consistent

EXHIBIT 4

Difference-in-differences estimates comparing receipt of unemployment insurance when Federal Pandemic Unemployment Compensation (FPUC) was active with receipt of unemployment insurance from August 19 to September 14, 2020 (when Lost Wages Assistance was active)

	Percentage points of outcome risk	
	Difference-in-differences estimate	Difference between those who do and do not report household receipt of unemployment insurance benefits
Missed housing payment	11.09 ^{****}	-10.44 ^{****}
Food insufficiency	4.77 ^{****}	-4.94 ^{****}
Depressive symptoms	5.94 ^{****}	-4.11 ^{****}
Anxiety symptoms	7.03 ^{****}	-2.85 ^{****}

SOURCE Authors' analysis of data from the Household Pulse Survey. **NOTES** Units are percentage points of risk for the outcome indicated by the row. The unemployment insurance estimate compares those who did and did not receive unemployment insurance. Point estimates, 95% confidence intervals (shown in the appendix; see note 37 in text), and *p* values are from linear probability regression models with robust standard errors clustered by respondent (to account for repeated survey responses within individuals) and representativeness weights. *q* values for all variables for both the difference-in-differences and unemployment insurance estimates are 0.0007 or less except for the Unemployment Insurance Estimate for anxiety symptoms, which was 0.01 (*q* values are explained in the exhibit 3 notes). Models were adjusted as described in the exhibit 3 notes. ^{***}*p* < 0.01 ^{****}*p* < 0.001

with the parallel trends assumption holding during the FPUC period, with coefficients typically close to 0 and not statistically significant (appendix exhibit 10).³⁵ Similarly, for all outcomes, placebo tests found coefficients near 0 and were not statistically significant (appendix exhibit 11).³⁵

ADJUSTED ANALYSES In difference-in-differences analyses adjusted for age, gender, race/ethnicity, education, income, household size, marital status, prior food insufficiency, work status in the past seven days, state COVID-19 cases per capita, and state and week of survey fixed effects, we consistently found that receiving unemployment insurance benefits was associated with lower risk for unmet health-related social needs and depressive and anxiety symptoms (exhibit 3; appendix exhibits 12–16).³⁵ For example, the adjusted risk difference for food insufficiency in those who received unemployment insurance benefits compared with those who did not was 5.01 percentage points lower (95% confidence interval: -6.51, -3.51; *p* < 0.0001; *q* < 0.0001).

When comparing post-FPUC with the period when FPUC was active, we observed significantly higher risk for unmet health-related social needs and depressive and anxiety symptoms among unemployment insurance recipients during the post-FPUC period. The difference-in-differences estimate of missing a housing payment was 10.79 percentage points greater (95% CI: 7.99, 13.58; *p* < 0.0001; *q* < 0.0001) for those receiving unemployment insurance in the post-FPUC period relative to those receiving unemployment insurance during the FPUC period. Similarly, the difference-in-differences estimate of food insufficiency was 3.88 percentage points greater (95% CI: 1.87, 5.89; *p* = 0.0002; *q* = 0.0003), of depressive symptoms was 6.04 percentage points greater (95% CI: 3.10, 8.97; *p* < 0.0001; *q* = 0.0002), and of anxiety symptoms was 5.82 percentage points greater (95% CI: 2.90, 8.75; *p* < 0.0001; *q* = 0.0002).

Results were similar when we compared the period when FPUC was active with data restricted to August 19–September 14 (when the Lost Wages Assistance program was active) (exhibit 4; appendix exhibit 17).³⁵

SENSITIVITY ANALYSES Balanced repeated replication analyses had point estimates identical to those of the main analyses, with smaller confidence intervals, as expected, meaning that post-FPUC unemployment insurance was similarly associated with unmet health-related social needs and worse mental health in these analyses (appendix exhibit 18).³⁵ Multiple imputation analyses also had estimates similar in magnitude to those of the main analyses, and post-FPUC unemployment insurance was significantly associ-

ated with unmet health-related social needs and worse mental health across all outcomes.

Discussion

When examining nationally representative survey data among those with COVID-19 pandemic-related income disruption, we found that being in a household that received unemployment insurance benefits was associated with fewer health-related social needs and better mental health. However, the lower benefit levels received by unemployment insurance beneficiaries after the expiration of FPUC were associated with greater risk for unmet health-related social needs and worse mental health.

These associations are consistent with unemployment insurance having its intended effect—providing resources to help mitigate the economic impacts of the pandemic—but also with the concern that unemployment insurance is less effective without FPUC. It is also important to consider the high prevalence of the study outcomes overall. Among adults with pandemic-related income disruption, one in four reported missed housing payments and food insufficiency, two in five reported clinically meaningful depressive symptoms, and more than half reported anxiety symptoms above a clinically meaningful threshold.

This study extends prior literature on potential health benefits of unemployment insurance. Prepandemic work found that unemployment insurance benefits improved mental health, particularly depression.⁶ Work conducted in the context of the Great Recession also found that more generous unemployment insurance was associated with better mental health and may have prevented deterioration of self-rated health.^{5,40} Other work examining austerity-related cuts to social programs found that such cuts were associated with worsening depression⁴¹ and worse access to health care.⁴²

This study suggests several directions for future research. First, studies should examine how state-level variability in unemployment insurance benefits is associated with health-related social needs and mental health outcomes. Next, given the barriers that likely prevented some eligible people from receiving unemployment insurance, a study that sought to estimate an intention-to-treat average treatment effect (for

example, the effect of specific unemployment insurance policies across all who might be eligible for them, as opposed to an effect estimated among those who received unemployment insurance) would complement the information provided here.

Given the ongoing debate surrounding unemployment insurance in the US, the study findings have important implications. Pandemic unemployment insurance programs incorporated several features of unemployment insurance reform that had been recommended, but not enacted, prepandemic.^{18,20,21} These include greater income replacement and more inclusive eligibility, particularly for low-income and self-employed workers. An additional proposed reform is to simplify, modernize, and possibly nationalize (that is, assume responsibility at the federal level) the unemployment insurance program. The massive spike in unemployment insurance claims at the beginning of the pandemic overwhelmed legacy systems, leading to large backlogs and frustration for users.⁴³ Finally, the comparison between the FPUC period and the period when the Lost Wages Assistance program was active is revealing. The reactivation of FPUC through at least March 2021 as part of HR 133 is welcome news. However, the study findings suggest that given the lower supplement level (\$300 versus \$600), reactivated FPUC may be less beneficial than initial FPUC. Conversely, as a result of variation in Lost Wages Assistance implementation among states, some people eligible for that assistance might not have been receiving it when they completed the survey.

Conclusion

We found enormous economic disruption wrought by the pandemic. Unemployment insurance benefits may help mitigate this, but the initial expiration of FPUC was associated with increased risk for unmet health-related social needs and worse mental health among unemployment insurance beneficiaries. In future debates about both short-term and longer-term unemployment insurance reform, it will be important to remember that unemployment insurance is a vital form of social insurance that could provide meaningful health benefits. ■

Funding for Seth Berkowitz's role on the study was provided by the National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health under Award No. K23DK109200. The content is solely the

responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health. In addition to his biographical affiliations, Sanjay Basu is also affiliated with the School of Public

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